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May 17, 1996

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Mr. William Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

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MAY 17 1996
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Re: CC Docket No. 92-297

In the Matter of Rulemaking to Amend Part 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band to Reallocate the 29.5 - 30.0 GHz Frequency Band to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services

Dear Mr. Caton:

ComTech Associates Incorporated ("ComTech") hereby submits an original and five copies of the following ex parte comments on the Third Notice and Proposed Rulemaking in the above-captioned proceeding ("Third Notice"). ComTech, a prospective Local Multipoint Distribution Service ("LMDS") provider based in Irving, Texas, wishes to supplement the record with comments on Lockheed-Martin's recent sharing proposal.

ComTech supports the adoption by the Commission of band plan Option 4 Prime (Option 4'). Further, ComTech is generally supportive of the proposal under discussion between the Wireless Bureau and the International Bureau to better define the sharing rules under which LMDS and GSO/FSS Gateway terminals will share the 135 MHz of spectrum between 29.240 GHz and 29.375 GHz. We encourage the Commission to reach closure on the details of these sharing rules with a minimum of delay. With this as a goal, ComTech wishes to offer the following principles for LMDS / FSS sharing:

Definition of LMDS Service Area

LMDS operators should be required to specify an intended "LMDS service area" to FSS licensees only upon notification of intent of an FSS licensee to place at least one Gateway terminal in the LMDS licensee's area (presumably a BTA). LMDS operators should not be required to determine and publish the "LMDS service area" by some arbitrary date certain after licensing by the Commission. Such a requirement is unreasonable because there is no certainty that Gateways will ever be placed in a given BTA, nor is there any certainty about the time at which such a placement of a Gateway will occur. Consequently, an arbitrary date certain for

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definition of the LMDS service area will only force LMDS licensees to accelerate systems, RF, and operations engineering processes to the potential detriment of their businesses. ComTech, as a small business, is concerned about access to limited resources needed to conduct these vital engineering processes on an artificially accelerated basis.

Additionally, LMDS licensees should be required to identify specific hub locations within the "LMDS service area". Hub locations will not be known until complete RF engineering studies have been conducted during the LMDS buildout phase which may, in accordance with the Commissions proposal in the Third NPRM, evolve over ten years. LMDS licensees cannot identify specific hub locations until negotiations with landowners and municipalities have been completed. In both the cellular and PCS industries, this process has exceed two years. A final problem with identifying specific hub locations is that it could prejudice the acquisition of those hub locations.

FSS/GEO operators should be required to hold in confidence any information provided to the FSS/GEO operator concerning the definition of the "LMDS service area". Similarly, LMDS operators should be required to hold in confidence the specific coordinates of the FSS/GEO's Gateway locations.

To protect the interests of both the LMDS licensee and the FSS licensee, ComTech recommends the following procedure for establishment of the "LMDS service area" and "Gateway location":

(1) Upon notification by an FSS licensee of intent to place a Gateway terminal in the BTA in which the LMDS operator is licensed, the LMDS licensee shall, within nine (9) months of notification by the FSS licensee, provide a definition of the "LMDS service area."

(2) Within three (3) months of notification of the "LMDS service area," the FSS licensee shall provide the coordinates of the Gateway location(s) to the LMDS licensee.

These rules protect both the FSS licensee and the LMDS licensee by making the location information critical to both parties available to them. The FSS licensee can obtain detailed information with sufficient time to do necessary Gateway planning. Likewise, the LMDS operator will be aware of the locations of the Gateway terminals so that it can do necessary planning and system engineering. Further, the LMDS licensee is not burdened by an accelerated engineering schedule based on the need to accommodate Gateways that may never be deployed.

"Penalties" Should Be Applicable to FSS as well as LMDS

Lockheed-Martin has proposed "severe penalties in the event of non-performance (by LMDS operators), to avoid LMDS licensees from claiming larger areas than they actually will serve." (April 29, 1996, Lockheed-Martin filing, Potential LMDS Sharing Principles). While these penalties are undefined, Lockheed-Martin suggests no such penalties for FSS "non-performance." Simply put, both the proposed requirement to advise FSS licensees of the "LMDS

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Service Area" and the system engineering that would be required of LMDS licensees to "work around" the Gateways, even if the locations are known, represent significant burdens on the LMDS licensees. Should the FSS licensee decline to proceed with plans as disclosed to the LMDS licensees, the harm to LMDS licensees resulting from wasted expenditure, schedule modification, and the deployment of infrastructure tailored to the FSS plans will be significant. Consequently, ComTech supports "penalties" for FSS non-performance commensurate with those proposed to be applicable to LMDS.

Penalties should be limited to monetary compensation in the form of the incremental costs of complying with the stated deployment intentions of the other parties. In the case of LMDS licensees, the deployment intentions are represented by the specification of the licensee's "LMDS service areas". In the case of the FSS/GEO licenses, the deployment intentions are represented by the specification of the coordinates of the Gateway locations.

Lockheed-Martin leaves the timing of imposing penalties unclear. ComTech believes that penalties should be imposed on LMDS operators if, at the end of the ten year build-out period, the "LMDS service area" has not been built out. Likewise if, at the time the FSS operator's satellite becomes operational. the Gateway intended to be deployed is not also operational, penalties should be imposed.

LMDS Hub Receivers in the LMDS Service Area Should be Protected from Gateways Regardless of the Location of Gateways

The Sharing Principles proposed by Lockheed-Martin suggest that Gateways within a protected area for LMDS be treated differently from those outside the protected area. ComTech opposes any such distinction. LMDS hubs within the LMDS Service Area should be protected from interference resulting from any FSS Gateway terminal regardless of location. It is instructive to observe that LMDS licensees will pay for spectrum while FSS licensees will not. Additionally, and more importantly, LMDS emissions from both hub and subscriber transmitters will presumably be "capped" by limits on power and power reductions off antenna boresight in the 135 MHz of shared spectrum. Lockheed-Martin itself has proposed this. As a result of these emission "caps," LMDS licensees will have no latitude to mitigate interference from FSS Gateways by increasing power to improve link margins against interference--regardless of the origin of the FSS interference.

The Flux Density at the LMDS Hub Should Not Exceed -103 dBW/m^2/MHz

ComTech's technical analysis indicates that the Lockheed-Martin-proposed flux density limit of -95 dBW/m^2/MHz is not sufficient to protect LMDS communications in the LMDS service area. Specifically, we propose a limit of -103 dBW/m^2/MHz. We also disagree with the view expressed by Lockheed-Martin in its April 29 filing that "if this (flux density limit) value is exceeded then coordination will be required". Once agreed upon, the flux density limit should be

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just that -- a limit with which the FSS operators must comply to ensure protection of LMDS communications.

The Flux Density Limit Should be Applied to the Aggregate of Interference Contributions of All FSS Gateway Terminals

The flux density limit established to protect LMDS receivers in the LMDS Service Area must serve as a limit applied to the aggregate of all interference contributions from FSS Gateway terminals, whether there is only a single gateway or multiple gateways which may cause the interference. Any other interpretation defies logic -- if a single gateway produces interference at this limit, the introduction of any additional gateways would push the interference over the limit. Moreover, if more than one FSS licensee serves notice of intent to place gateways in an LMDS licensee's area, the flux density limit should apply in the aggregate to the gateways of all FSS providers. Obviously, an equitable method of prorating the flux density limit between FSS providers must be applied.

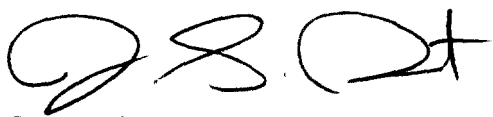
The Definition of a "Gateway" is Unclear

Since the Commission first proposed Option 4', the definition of the "FSS Gateway" has remained unresolved. There should be some criteria applied to determine if an FSS earth station terminal is indeed a Gateway -- a name intended to distinguish it from more widely deployed user terminals. Possible criteria may include a capability to aggregate and transport information from a number of independent sources or direct connection to switching facilities.

Summary

ComTech applauds the efforts of Lockheed-Martin to generate proposals intended to bring closure to this excessively lengthy proceeding. Similarly, we urge the Commission to end this lengthy matter that is preventing new entrants from participating in the communications revolution through the exciting new LMDS technology.

Sincerely,



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